

cells, or frequently with only one layer and occasional groups of bistro-matic cells here and there, not papillose, but the thickened walls of the apical cells giving an irregular outline to the cross-sections of the leaves; basal cells in one layer, more distinct, oblong or quadrate, .013–.021 mm. in diameter. Dioicous, only male plants collected, antheridia large, bright yellow, with or without paraphyses.

On rocks, Tuckerman's Ravine, Mt. Washington, N. H., alt. 1,230 m. July 30, 1890. Collected by Dr. Alexander W. Evans of Yale University, to whom this species is dedicated in recognition of his services to American bryology.

Dr. Evans' specimens have been compared with *Grimmia caespiticia* (Brid.) Jur. (*G. sulcata* Sauter) and with Limpricht's description and figures (Rab. Kryptfl. 4: 2, 778, fig. 203). Though closely resembling this species in the form and structure of the leaves, ours lack the two prominent folds of the European species and the plants are coarser and more loosely tufted. Dr. Breidler kindly sent me specimens from the Austrian Alps for comparison and I hereby tender him and Mr. J. F. Collins my thanks, the drawings having been made by Mr. Collins.

EXPLANATION OF PLATE 7.—*Grimmia Evansi*: fig. 1, outlines of three foliage leaves, enlarged 12 diameters; fig. 2, perigonal leaves, flattened and torn on account of being very concave, enlarged 12 diameters; fig. 3, apical cells of one leaf with a hyaline tip; fig. 4, median cells; fig. 5, basal cells; fig. 6, alar cells; figs. 7 and 8, cross-sections of leaves, showing irregular bistro-matic cells. Figs. 3 to 8 are enlarged 330 diameters.

NEW FORMS OF GREEN ALGAE.¹

N. WILLE.

MICROSPORA AMOENA (Kuetz.) Rab., forma **crassior**, N. FORM. Cells 30–32 μ diam.—Pequonnock River, Bridgeport, Conn., April 22, 1894, in company with the type; collected by Isaac Holden.

RHIZOCLONIUM LACUSTRE Kuetz. forma **Americana**, N. FORM. Cells not swollen, with thin walls and very scanty rhizoids. Cells 15–16 μ wide, 15–60 μ long.—Attached to stones, and growing to a length of one half meter to one meter, Bridgeport, Conn., July 25, 1892; collected by Isaac Holden.

¹ The forms here described, with a number of others, all of which were intended for distribution in Collins, Holden, and Setchell, *Phycotheca Boreali-Americana*, were submitted to Professor Wille for revision, and these two forms and one species from New England were determined by him to be new. They will be distributed in Fascicle XIII, which will appear some time in 1899.—F. S. COLLINS.

Elakatothrix Americana, N. SP. Forming gelatinous, laciniate and anastomosing masses, several cm. long, attached to other plants. Cells more oval than in *E. gelatinosa* Wille; the cell divides across the middle, but the daughter cells grow obliquely past each other, causing irregularity in the structure of the thallus. Length of cells 12–25 μ ; breadth 6–11 μ . — Found at Monroe, Conn., May 30, 1895; collected by Miss Grace Angeline Smith.

CHRISTIANIA, NORWAY.

FURTHER NOTES ON NEW ENGLAND ANTENNARIAS.

M. L. FERNALD.

THE Antennarias, it may well seem, have received during the past two years more than their share of attention in the literature of American systematic botany; yet so active have been three New England botanists during the past May and June that much more has been added to our knowledge of that group. In Vermont President Ezra Brainerd, of Middlebury College, has made an exceedingly thorough study of the plants in the field; while Mr. W. W. Eggleston of Rutland, Vermont, and Mr. J. C. Parlin of North Berwick, Maine, have both made critical notes and collections. These careful observations have extended the known ranges of many formerly recognized New England species, and in Maine and Vermont a novel plant with marked and apparently constant characters has been collected. The following notes based primarily upon the collections above referred to may be considered supplementary to the two papers already published upon the genus *Antennaria* in New England.¹

Antennaria ambigens (*A. arnoglossa*, Greene, var. *ambigens*, Greene, Pittonia, iii. 320; *A. Parlinii*, Fernald, var. *ambigens*, Fernald, Proc. Bost. Soc. Nat. Hist. xxviii. 244). This plant formerly given only varietal recognition is now elevated without hesitation to specific rank. Though it bears some purple glands like those of *A. Parlinii*, in all its other characters — the dull pubescent upper surfaces of the basal leaves, the arachnoid glandless upper faces of the cauline ones, and the subcapitate inflorescence — it differs strikingly from that species. In

¹ Proc. Bost. Soc. Nat. Hist. xxviii. 237–249; RHODORA, i. 71–75.